

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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# MULTIMEDIA UNIVERSITY

## FINAL EXAMINATION

TRIMESTER 3, 2017/2018

### DMA5018 – MULTIMEDIA APPLICATIONS

(For Diploma students only)

5 JUNE 2018  
2:30 p.m. – 4:30 p.m.  
(2 Hours)

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#### INSTRUCTIONS TO STUDENT

1. This question paper consists of 8 pages.
2. Answer ALL questions in Section A and Section B on the Answer Booklet.

**SECTION A: 30 MULTIPLE CHOICE QUESTIONS (30 MARKS)**

*Instruction: Write your answers in the Answer Booklet.*

1. Text that has words, sections, or thoughts are linked together with clickable spots is called \_\_\_\_\_.
  - A. hotspot
  - B. hypertext
  - C. hyperlink
  - D. hypermedia
2. Specifying which font to be substitution is called \_\_\_\_\_.
  - A. alising
  - B. anti-alising
  - C. rasterization
  - D. font mapping

3.



*Label X* shown in typography above is known as:

- A. leading
  - B. baseline
  - C. point size
  - D. cap height
4. \_\_\_\_\_ fonts are used for headlines and bold statements. It is considered better for computer displays.
  - A. Arial
  - B. Serif
  - C. Calibri
  - D. Sans-serif
5. The wider-than-tall orientation that is normal to monitors is called \_\_\_\_\_.
  - A. landscape
  - B. portrait
  - C. canvas
  - D. screen
6. Which of the following is **FALSE** about symbols?
  - A. Used to convey human emotions.
  - B. Used to convey meaningful messages.
  - C. Symbolic representations of objects and processes.
  - D. Concentrated text in the form of stand-alone graphic constructs.

**Continued...**

7. Bitmaps are an image format suited for creation of the following **EXCEPT**:
- Complex drawings.
  - Photo-realistic images.
  - Images that require fine detail.
  - Graphic artists designing for the print media.
8. Which of the following statement are **TRUE** about bitmap images?
- Use less memory space.
  - Not easily scalable and resizable.
  - Require a plug-in for web-based display.
  - Download faster compare to vector images.
  - Can be converted to vector images using autotracing.
- II, V
  - III, IV
  - I, III, IV
  - All of the above
9. Which of the following is the **BEST** example of lossy formats for image file compression?
- GIF
  - PSD
  - PNG
  - JPEG
10. Authoring tool features as stated below refers to \_\_\_\_\_.
- *Layering capability.*
  - *Image manipulating.*
  - *Scalable dimensions and text.*
  - *Edit and retouching bitmapped image.*
- painting tools
  - drawing tools
  - word processing tools
  - 3-Dimensional modeling tools

Continued...

11. Vector-drawn images is suitable to be applied in which area?

- I. Computer-aided design
- II. 3-D animation programs
- III. Graphic artists designing for the print media
- IV. Applications requiring drawing of graphic shapes

- A. I, II
- B. III, IV
- C. I, II, IV
- D. All of the above

12. The 3-D application feature as stated below refers to \_\_\_\_\_.

A profile of the shape is rotated around a defined axis.

- A. lathing
- B. shaping
- C. modeling
- D. extrusion

13. Animation that moves objects in flat space but adds an illusion of depth through shadowing and forced perspective is animation in \_\_\_\_\_ space.

- A. 2D
- B. 2 ½ D
- C. 3D
- D. 4D

14. Which of the following is **FALSE** about animation?

- A. Defined as the act of making something come alive.
- B. An object moving across or into or out of the screen.
- C. It is concerned with the visual or aesthetic aspect of the project.
- D. A technique in which a series of progressively different graphics is used on each frame of movie film.

15. What is the extension of an Adobe Flash project that has been compiled for playback?

- A. .fla
- B. .svg
- C. .dcr
- D. .swf

Continued...

16. Some animation programs allow the animator to create a trail between two points and then animate an object along that trail. This type of animation is called \_\_\_\_\_.
- A. morphing
  - B. kinematics
  - C. cel animation
  - D. path animation
17. When sound is digitized, the frequency with which a section of sound is taken and stored is known as the \_\_\_\_\_.
- A. bit depth
  - B. resolution
  - C. sample size
  - D. sampling rate
18. Digital audio is known as \_\_\_\_\_ when the audio quality based on quality of your recording, and not the device the end user will play the audio.
- A. speaker
  - B. quantization
  - C. device dependent
  - D. device independent
19. Which of these statements regarding the MIDI audio format is **TRUE**?
- A. It is difficult to change instruments.
  - B. Spoken audio is difficult to include.
  - C. Sound tracks can be edited using waveform editors.
  - D. Files are generally larger than the same digital audio sound.
20. Which of the following sound editing operation **BEST** describes the statement below?

*Edit and combine multiple tracks such as sound effects, voice-overs, music, etc; and merge the tracks and export in final mix to a single audio file.*

- A. Multiple track
- B. Format conversion
- C. Splicing & Assembly
- D. Digital signal processing

Continued...

21. Which of the following multimedia elements places the highest demand on hardware performance?
- A. Audio
  - B. Video
  - C. Graphic
  - D. Animation
22. Computer displays draw the lines of an entire frame in a single pass; this technique is called \_\_\_\_\_.
- A. packing
  - B. overscan
  - C. streaming
  - D. progressive-scan
23. A video signal transmitted with all the signals mixed together and carried on a single cable is called \_\_\_\_\_.
- A. RGB video
  - B. composite video
  - C. component video
  - D. multiformat video
24. The video technique that allows you to choose a color or range of colors that become transparent, allowing the video image to be visible behind those colors in the overlying image, is known by all of the following **EXCEPT**:
- A. interlacing
  - B. blue screen
  - C. green screen
  - D. chroma key editing
25. There are three analog broadcast video standards are commonly in use around the world **EXCEPT**:
- A. Phase Alternate Line
  - B. High Definition Television
  - C. Sequential Color and Memory
  - D. National Television Standards Committee
26. The \_\_\_\_\_ and the \_\_\_\_\_ are the protocols for communication on the Internet.
- A. Hypertext Transfer Protocol; Internet Protocol
  - B. Transmission Control Protocol; Internet Protocol
  - C. Uniform Resource Locators; Hypertext Transfer Protocol
  - D. Hypertext Transfer Protocol; Transmission Control Protocol

Continued...

27. An IP address can be exchanged with a(n) \_\_\_\_\_.  
A. MIME-type  
B. usenet group  
C. domain name  
D. point-to-point protocol
28. The amount of data expressed in terms of bits per second is referred to as \_\_\_\_\_.  
A. bps  
B. speed  
C. packets  
D. bandwidth
29. Web pages are written in \_\_\_\_\_.  
A. MIME  
B. HTML  
C. TCP/IP  
D. JAVA
30. Which of the following services is provided by Internet?  
I. FTP  
II. Gopher  
III. Usenet  
IV. Telnet  
V. SMTP  
VI. MUD
- A. I, II, IV, V  
B. I, II, III, IV  
C. III, IV, V, VI  
D. All of the above

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**SECTION B: 5 STRUCTURED QUESTIONS (70 MARKS)**

*Instruction: Write your answers in the Answer Booklet.*

**QUESTION 1 (15 MARKS)**

- a) Explain **THREE (3)** types of character set and give an example for each of them. [9 marks]
- b) Explain the use of image editing programs in producing a multimedia project. [4 marks]
- c) List **TWO (2)** 3-D animation drawing and rendering tools. [2 marks]

**QUESTION 2 (15 MARKS)**

- a) Explain cel animation technique. [8 marks]
- b) Discuss the following terminology in animation:
- i) Kinematics [2 Marks]
  - ii) Inverse kinematics [2 Marks]
- c) Discuss and identify the difference between computer animation and the traditional way creating an animation. [3 marks]

**QUESTION 3 (10 MARKS)**

- a) Discuss digital audio. [5 marks]
- b) Calculate the audio file size in *Megabytes* of 2.5 minutes, 2 bytes, 44.1kHz mono music. [5 marks]

**QUESTION 4 (15 MARKS)**

- a) Explain codec. [3 marks]
- b) Calculate the video file size in gigabytes. [12 marks]

Duration	Frame Rate	Frame Size	Color Depth
78 minutes	30 fps	800 x 400	16

**Continued...**



**QUESTION 5 (15 MARKS)**

- a) Explain bottleneck. [1 mark]
- b) Discuss **FOUR (4)** ways to avoid bandwidth bottleneck. [8 marks]
- c) Explain how data are sent over the internet. [6 marks]

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